UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

Via U.S. Postal Service and Electronic Mail
Certified Mail Receipt No.7000 0520 0021 6107 8322

May 27, 2009

Marion Jaroszewski
Vice President, Delta Star
Delta Star, Inc.
270 Industrial Road
San Carlos, CA 94070

Re: ***USEPA Conditional Approval – Proposed Vapor-Phase Pit Installation Delta Star Manufacturing Building at 270 Industrial Road, San Carlos, California Notification and Certification Summary Report***

Dear Mr. Jaroszewski:

Thank you for submitting the "Proposed Vapor-Phase Pit Installation Delta Star Manufacturing Building at 270 Industrial Road, San Carlos, California Notification and Certification Summary Report" prepared for Delta Star, Inc. ("Delta Star") by ETIC, Inc. ("ETIC"), dated April 9, 2009. This report was submitted by Delta Star to the United States Environmental Protection Agency, Region 9 ("USEPA" or "Region 9") for approval as a risk-based disposal application ("Application") pursuant to the Toxic Substances Control Act, 15 U.S.C. §§ 2601 to 2692 ("TSCA"), and 40 C.F.R. § 761.61(c).

Delta Star's Application covers only characterization, cleanup, and disposal activities for the proposed Vapor-Phase Pit ("Pit"; 1,575 square feet [sq.ft.]) area within the manufacturing building at the 5.5-acre Delta Star facility ("Facility") rather than for the entire Facility. Polychlorinated biphenyls (PCBs) were found in soils, ground water, and the oil carried by ground water entering the excavation in the Pit area. Region 9 hereby conditionally approves the Application contingent upon compliance with the terms set forth in Enclosure 1.

Region 9 is also concerned that there may be additional PCB contamination at the Facility in areas other than the Pit. The PCBs that were detected at 680 mg/L (ppm) in the oil layer carried by ground water entering the Pit were from an unknown source. Region 9 is also aware of a July 1999 Order (Order No. 99-062) issued by the Regional Water Quality Control Board demonstrating that soils in the northern portion of the Facility had PCB concentrations as high as 18,000 ppm (mg/Kg). Region 9 understands that this PCB contaminated soils were removed and disposed of without going through a TSCA cleanup consistent with 40 C.F.R. § 761.61. Finally, Region 9 understands that the Facility was used to manufacture PCB (e.g., Askarel) containing transformers for many years. In light of these facts, USEPA requests that Delta Star submit a supplemental TSCA application that covers characterization, cleanup, and disposal of PCBs for the rest of the Facility by July 15, 2009. In preparing the application, Delta Star should follow the recommendations set forth in Section E of Enclosure 1,"Key Elements of Supplemental Application Requested by USEPA." If such a supplemental application is not received by this date, USEPA will consider its various authorities to require such a submittal.

To summarize, consistent with the conditions set forth in Enclosure 1, Region 9's approval of the Application covers the following activities by Delta Star:

- Completing ground water (expected to enter the excavation) and soil characterization at the proposed Pit area in tandem with construction of the Pit and reporting the findings of the investigation.

- Implementing contingency procedures in the Health and Safety Plan submitted as part of the Application to protect workers in the event that PCBs are found in soils and / or ground water at concentrations higher than those used in the risk evaluation included in the Application. Contingency procedures shall also be implemented in the event that PCBs are present in concrete structures, piping, or other encumbrances that may be contaminated with PCBs.

- Submitting sampling and analysis clarifications, as requested in Enclosure 1.

This conditional approval does not relieve Delta Star from complying with all other applicable federal, state, and local regulations and permits. Moreover, any departure from this approval or failure to meet the conditions set forth in Enclosure 1 without prior written permission from Region 9 may result in the immediate suspension of this approval, the commencement of proceedings to revoke this approval, and/or an enforcement action. This conditional approval does not preclude USEPA from initiating an enforcement action, including seeking civil penalties, for violations of any requirement set forth at 40 C.F.R. Part 761.

We look forward to receiving Delta Star's written responses to conditions of approval 1 and 1a in Section B in Enclosure 1. Region 9 also looks forward to receiving the supplemental application for the entire 5.5-acre Facility by July 15, 2009. Please call Carmen Santos of my staff at 415.972.3360 if you have any questions concerning any matters addressed in this letter.

Sincerely,

for Jeff Scott
Director
Waste Management Division

Enclosures (1)

Cc: Mark Johnson (RWQCB)
Arlene Kabei (USEPA R9)
Steve Armann (USEPA R9)
Carmen Santos (USEPA R9)
Patrick Wilson (USEPA R9)
Christpoher Rollins (USEPA R9)
Loren Henning (USEPA R9)

USEPA Enclosure 1
May 27, 2009

Delta Star, Inc. – Proposed Vapor Phase Pit Area
Risk-Based Disposal Application and Request to Resume Construction of Vapor Phase Pit

USEPA's Conditional Concurrence with Construction
USEPA's Conditional Approval of Application

Delta Star, Inc. (Delta Star)
270 Industrial Road
San Carlos, California 94070

A. Background and Introduction

The U.S. Environmental Protection Agency (USEPA) is conditionally concurring with Delta Star's request to resume construction of the proposed Vapor Phase Pit (Pit). This request is described in the *"Proposed Vapor-Phase Pit Installation Delta Star Manufacturing Building at 270 Industrial Road, San Carlos, California Notification and Certification Summary Report,"* (risk-based application or Application) prepared by ETIC Engineering, Inc. (ETIC) for Delta Star, Inc. and dated April 9, 2009. Delta Star has submitted this Application under 40 CFR 761.61(c). Rather than covering the entire 5.5-acre Facility (also "site") as discussed during the April 7, 2009 conference call with ETIC, the Application covers the proposed Pit area for characterization, cleanup and disposal activities. Polychlorinated biphenyls (PCBs) were found in soils, ground water, and oil at the proposed Pit area. PCBs (Askarel) were used in the past at the Facility in the manufacturing of transformers.

B. USEPA's Conditions of Concurrence with Delta Star Proceeding with Construction of Vapor-Phase Pit and Conditional Approval of Application

Delta Star shall meet all the conditions of approval described below, which modify the Application. However, USEPA's conditional concurrence with Delta Star proceeding with construction of the Pit is effective upon Delta Star meeting Conditions 1 and 1a below.

In addition to information described in USEPA's cover letter, the conditions of approval are supported by USEPA's comments on the risk evaluation contained in the Application and the comments on the Application. These comments are presented in Sections C and D, below.

Conditions of Concurrence and Approval

1. **Sampling and Analysis Plan (SAP):** The purpose of the SAP is to facilitate completion of soil, ground water, and oil characterization beneath the proposed Pit area while the Pit is under construction (including excavation activities). Within 5 days after the date of this enclosure, please provide the following information:

   (a) Sample collection procedures for soil, (refer to 40 CFR 761 Subparts N and O since the application does not specify any procedures), ground water, and oil;
   (b) Sample preparation (e.g., extraction and sample cleanup) and analysis methods that will be used for PCBs;

(c) Name of analytical laboratory that will be used;
(d) Laboratory analytical method detection limits and reporting limits; and
(e) A map showing proposed locations for additional samples (soil, ground water, oil) to be collected to complete characterization of the proposed Pit area while conducting construction activities.

USEPA requests that in addition to samples proposed in the Application that additional soil, ground water, and oil (if present) samples be collected in the following locations at similar depth intervals as in previous sampling and to the bottom of excavation: (a) between SB-1 and SB-2, (b) between SB-2 and SB-4, and (c) between SB-1 and SB-6.

Ground water samples shall not be filtered for analysis.

1a. Use of vacuum truck to remove PCB-containing oil and PCB-contaminated ground water. Within 5 days after the date of this enclosure, please indicate what decontamination procedures will be implemented to decontaminate the vacuum truck to be used to remove PCB-containing oil and PCB-contaminated water. Please also refer to Condition 8 below.

2. Cleanup level for soils beneath the proposed Vapor-Phase Pit area. The April 9, 2009 Application does not identify a risk-based cleanup level for soils at the proposed Pit area. To expedite work in the Pit area the PCB cleanup level for this area shall be less than or equal to 25 mg/Kg (ppm) PCBs. This cleanup level is consistent with the cleanup levels for low occupancy under TSCA at 40 C.F.R. 761.61(a). Upon closure of the Facility, soils contaminated with PCBs above risk-based levels that are compatible with the future land use for the 5.5-acre facility must be excavated and removed to meet final risk-based cleanup levels.

3. Characterization of Pit area. Delta Star shall complete characterization of ground water (expected to enter the excavation), soil, and oil at the proposed Pit area in tandem with construction of the Pit.

3a. Process piping, sewage lines, and drainage structures (e.g., piping, culverts). Process piping, sewage lines, and drainage structures shall be properly characterized for PCBs before disposal. Please contact USEPA to get guidance on how to sample piping for PCBs. This condition modifies Section 2 (Project Description) of the Health and Safety Plan.

4. Implementation of contingency procedures in the Health and Safety Plan. Delta Star shall implement contingency procedures related to the finding of soils, ground water, and oil containing PCBs to protect workers during construction of the Pit as stated in the Application. Contingency procedures shall also be implemented in the event that PCBs are present in concrete structures, piping, or other encumbrances that may be contaminated with PCBs within the Pit area.

5. Recommendations and interim remedial actions. Delta Star shall implement the proposed interim remedial actions as modified by USEPA's conditions of approval and comments on the Application (refer to Sections C and D below).

6. Health and Safety Plan Section 2.0 (Project Description) and Section 7 (Decontamination Procedures). These sections of the Health and Safety Plan are modified by Conditions 7 through 11 below.

7. Decontamination of Pit excavation ground water contaminated with PCBs at concentrations greater than 0.5 ug/L. Please refer to Condition 10 below.

8. Equipment decontamination. Decontamination of sampling equipment shall be conducted in accordance with 40 CFR 761.61(a)(5)(v). The decontamination procedures under 40 CFR 761.79(b) or (c) may also be used.

9. Determination of PCB concentration for disposal. The PCB concentration for disposal of PCB contaminated soils, ground water, and oil shall be based on as found in situ PCB concentrations.

10. Disposal of PCB contaminated soils and water (including ground water). The disposal of PCB contaminated soils and water shall be performed in accordance with 40 CFR 761.61(a)(5)(i)(B), 761.61(a)(5)(i)(B)(1), (B)(2)(i), (B)(2)(ii), (B)(2)(iii), and (B)(2)(iv) as applicable; and any applicable state regulatory requirements for waste containing PCBs.

11. Disposal of cleanup wastes. Disposal of cleanup wastes (e.g., personal protective equipment) shall be performed in accordance with 40 CFR 761.61(a)(4)(v).

C. Comments on Delta Star Application - Exposure Point Concentrations, Risk Characterization Strategy, and Characterization of Exposure

The April 9, 2009 "Notification and Certification Summary Report" (risk-based disposal application or Application) includes limited contaminant characterization information, a proposed mitigation strategy, and risk analysis information in an effort to comply with Title 40 CFR 761.61(c). The Application is also inclusive of health and safety plan specific to the Pit area.

USEPA's preliminary review of the health risk assessment and health and safety plan specific to the Pit area has revealed a number of data gaps and site characterization uncertainties which collectively serve to render the estimates of carcinogenic impact as well as non-cancer or systemically toxic impact extremely uncertain and perhaps unreliable. Identified below are several overarching and specific comments regarding the methods applied by ETIC in support of risk analysis and the conclusions drawn from that analysis.

1. Site Background, Page 3. This section of the Application is deficient and should be revised. The history of PCB releases and remedial activities at the Delta Star Facility is extensive and has been well documented by various California environmental regulatory agencies. Nevertheless, the

current Application provides no context, history, or summary of previous PCB releases, media-specific contaminant concentrations, or remedial activities undertaken at the facility. A chronology of historic site characterization details regarding PCB or VOC releases has not been documented in the Application, nor has any information been provided regarding past investigational efforts, or remedial activities been summarized in any section of the Application. Therefore, an adequate site background and historical perspective regarding the range of environmental contaminant issues at this Facility cannot be accurately deduced from the information or findings in the Application.

2. Exposure Point Concentrations (EPCs) and Risk Characterization Strategy, Pages 12 – 14. The concentrations of PCBs used to generate quantitative levels of impact were derived from a site with incomplete contaminant characterization information and are therefore highly uncertain and most likely not representative of overall subsurface contaminant concentrations. A limited, albeit focused, contaminant characterization effort has been implemented at the proposed Pit area of this site. The concentration of PCBs found in subsurface soils and ground water was applied as an input parameter to support determination of the magnitude and likelihood of human health impact. Past site-specific investigations and remedial efforts have identified extremely elevated levels of PCB impacted media in the subsurface. The source of PCBs identified during current excavation activities for the Pit in soils and ground water has not been conclusively identified. Therefore, the potential for elevated PCB concentrations in the subsurface at areas adjacent or lateral to the vapor pit is likely based upon findings and patterns from historical contamination. This data gap represents a significant uncertainty which potentially impacts the reliability of the risk estimates in the Application.

2a. In addition, the impacts from exposure to PCB contaminated ground water were based on the concentration of PCBs found in a ground water sample. Review of the analytical data indicates that this ground water sample was filtered prior to laboratory analysis. PCBs are highly hydrophobic compounds. Therefore, their physical-chemical properties suggest that filtered water samples will have remarkably lower PCB concentrations when compared with non-filtered samples. As a result, the concentration of PCBs used as an input in the risk characterization algorithms is likely to remain low-biased and non-conservative from a health impact perspective. Moreover, it is not clear the degree to which the risk characterization algorithms applied adequately quantify putative health impacts from dermal contact and uptake with PCB contaminated ground water. The Delta Star conceptual site model (CSM) should be expanded to encompass all sources of potential PCB contamination and the potential routes of human exposure. Further, additional clarity should be provided in the risk characterization algorithms to ensure that the dermal uptake exposure route for this extremely lipophillic class of constituents is fully characterized.

3. Characterization of Exposure Setting, Page 10. This section of the analysis indicates that impacts to the ecosystem are not warranted because the site is not proximate to adjacent surface waters or the shoreline of San Francisco Bay. The Belmont Channel and Phelps Slough are located less than 2,000 feet from this facility and potential surface water / ground water dynamics have not been well described in the Application. Therefore, potential impacts from both current and historical PCB releases which have been identified in the subsurface at this site should be

evaluated for their potential to impact ecological receptors or sensitive habitat with direct or indirect connections to San Francisco Bay.

D. Comments on Delta Star Application – Main Text, Proposed Interim Remedial Actions

1. Characterization of the Pit area. The Application does not describe how contamination in the Pit area will be characterized. The procedures for site characterization are included in 40 CFR 761.61 Subparts N and O. Please refer to the conditions of approval above in Section B, and in particular Conditions 1, 2, 3, 3a, and 5.

2. Recommendations and proposed interim remedial actions. The *"Recommendations and Remedial Actions"* section of the Application appears to be the cleanup plan for the Pit area. Regarding disposal and decontamination, please refer to the conditions of approval above in Section B which modify the Application. Please refer to Conditions 5 and 7 through 11 in Section B above.

3. Health and Safety Plan (HSP). In general, USEPA does not approve Health and Safety Plans. However, please refer to Conditions 3a, 4, and 6 in Section B above modifying specific sections of the HSP. The HSP is part of the Application and a contingency measure for the risk evaluation contained in the Application.

4. Available soil and ground water data. The Application fails to provide a summary of all currently available sampling, removal, and disposal data for PCB oil (e.g., Askarel) and PCB contaminated soils, concrete, ground water, and sediments (if any). The Application only addresses the proposed 1,575 sq. ft. Pit area within a transformer manufacturing building at a 5.5-acre Facility. The source of PCBs in oil (680 mg/Kg) carried by ground water is not discussed in the Application. USEPA is requesting a supplemental application. Please refer to letter transmitting this enclosure and Section E below.

E. Key Elements of Supplemental Application Requested by USEPA

1. Current facility conditions report. Please summarize and evaluate all currently available information regarding PCBs at the 5.5-acre transformer manufacturing Facility. This information includes all data generated and actions taken as a result of the California Department of Toxic Substances Control (DTSC) and RWQCB involvement with the Facility. The current conditions report shall include maps and figures that clearly identify the following:

(a) Areas where PCB-contaminated soils and concrete have been removed from the Facility,
(b) PCB concentration of soils, sediments, concrete, and ground water removed from the Facility,
(c) Any concrete or asphalt caps installed at the Facility to prevent exposures to PCBs,
(d) PCB concentrations currently remaining in place after removal of soils and other materials (e.g., concrete) under DTSC and RWQCB oversight and their location, and
(e) Areas that should be further investigated at the 5.5-acre Facility.

The current conditions report shall also summarize the ground water monitoring data including concentration of PCBs in several ground water wells that currently exist at the 5.5-acre Facility and ground water wells that may be on the Tiegel property.

2. Site characterization and cleanup plan. In accordance with 40 CFR 761.61(a)(3), the supplemental application shall contain a cleanup plan. The sufficiency and adequacy of previous or past data collection at the 5.5-acre facility shall be evaluated to determine whether this data have been collected in a manner similar to that required under TSCA. The cleanup plan shall follow TSCA requirements at 40 CFR 761.61(c); and 40 CFR 761.61(a)(3) in accordance with 40 CFR 761.61(c).

3. Risk evaluation for the entire 5.5-acre Facility. Please refer to the comments in Section C above and contact USEPA for further guidance.

4. Financial assurance. Based on a cursory review of remedial actions conducted at Delta Star ~~under DTSC and RWQCB oversight, PCB contamination currently remains on-site beneath the manufacturing building potentially at levels higher than 50 ppm (mg/Kg) as well as other areas of~~ the Facility. PCB contamination may be present at other areas of the Facility with potential limited access for cleanup while the Facility is still in operation.

Further, the land uses near and at the Facility may change in the future although Delta Star is located within an industrial area. According to the December 16, 1992 Covenant and Agreement issued by DTSC for the Delta Star Facility, residential areas exist within 500 feet of the southern portion of the Delta Star property. USEPA also understands that a hospital will be or is being constructed in the general vicinity of the Delta Star Facility.

The amount of financial assurance that gets established shall be sufficient for a third party to clean up PCB contaminated areas at the Facility including waste disposal and any necessary decontamination procedures. The supplemental application shall contain a schedule to:

(a) Prepare and submit to USEPA a cost estimate to complete PCB investigations and cleanup of areas at the Facility that will become accessible when Delta Star closes the Facility. The cost estimate shall include disposal costs for PCB waste (including PCB remediation waste and cleanup wastes) and decontamination of equipment associated with the cleanup;
(b) Propose a financial assurance mechanism; and
(c) Establish and fund the financial assurance mechanism. The financial assurance mechanism shall be established and funded within 60 days after Delta Star submits the cleanup report prepared after implementation of the requested supplemental application for the entire 5.5-acre manufacturing Facility.

5. Deed notice. The required supplemental application shall describe the contents of the deed notice to be applied to the Facility. Among other information, the notice shall include a survey map of the Facility depicting the areas where PCBs remain in place and the PCB concentration.